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73:41287 Synthesis and study of  $A_2Sb_5B'O_6$  and  $A_3Sb_2B'O_9$ -type ternary oxides with perovskite structure. Fesenko, E. G.; Filip'ev, V. S.;

Kupriyanov, M. F.; Devlikanova, R. U.; Zhavoronko, G. P.; Ochirov, V. A. (Rostov, Gos. Univ., Rostov, USSR). Izv. Akad. Nauk SSSR, Neorg. Mater., 6(4), 800-2 (Russian) 1970. CODEN: IVNMAW.

The existence of perovskites of complex compn. with  $Sb^{5+}$  ions occupying a part (1 to eq. 2/3) of the octahedral positions is confirmed. The  $Sb^{5+}$  ions in the perovskite structure can combine with other cations, which differ considerably in size and in valency. Perovskites with octahedral positions completely occupied by  $Sb^{5+}$  do not exist. Principles governing structure of the morphotropic series  $A_2SbB'O_6$  and  $A_3Sb_2B'O_9$  (with variable  $B'$  ion) are analogous to the corresponding Ta and Nb series, where A is Ba, Ca, and Sr and  $B'$  ( $M^{3+}$  or  $M^{2+}$ ) is Al, Ga, Cr, Fe, Mn, Sc, In, Lu, Yb, Im, Er, Ho, Dy, Y, Tb, Bi, Gd, Nd, Sm, Pr, La or Ni, Mg, Co, Cu, Zn, Fe, Mn, Cd, Ca, Sr, Pb, resp.

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